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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/862,600	05/23/2001	Luc Attimont	Q64570	8352

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EXAMINER	
FERGUSON, KEITH	
ART UNIT	**PAPER NUMBER**
2683	

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/862,600	ATTIMONT ET AL.	
	Examiner	Art Unit	
	Keith T. Ferguson	2683	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *18 October 2004*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-16* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-16* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

Response to Arguments

1. Applicant's arguments with respect to claims 1-16 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. Claims 1 and 4-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Parkkila in view of Shi, newly recited reference.

Regarding claim 1, Parkkila discloses a method (fig. 3) of connecting to a radiocommunication network (fig. 1) a terminal (mobile station) which periodically searches the radio communication network for a signal because of temporary unavailability (loss of service) of the signal from the network (claim 1 lines 23-33 and col. 7 lines 35-67), said method

comprising: periodically scanning (i.e. the mobile station regularly looks to determine if there is a better cell in the term of reselection criteria by performing a measurement procedure) (col. 6 lines 56-67, col. 7 lines 15-34 and claim 1 lines 27-55) frequencies of said radiocommunication network using one sequences (i.e. a measurement procedures on BCCH carriers that were included in the last BCCH carrier allocation received from the network)(col. 7 lines 48-53) each associated with a predetermined list (neighboring list or BA) (col. 7 lines 21-23, col. 7 lines 48-53, claim 1 lines 35-46 and claim 3 lines 64-67) of frequencies (carriers) from all said frequencies (carriers) (col. 7 lines 21-23, col. 7 lines 48-53, claim 1 lines 35-46 and claim 3 lines 64-67). Parkkila differs from claim 1 of the present invention in that it does not explicit disclose when signal intensity was approximately constant before the search and wherein when signal intensity is not approximately constant before search, scanning all of said frequencies. Shi teaches a method of connecting to a radio network (fig. 5) wherein an signal intensity was approximately constant before the search (signal strength or RSSI stored in memory) (col. 3 line 50 through col. 4 line 20) and wherein when signal intensity is not approximately constant before search, scanning all of said frequencies (col. 4 line 20 through col. 5 line 14). Therefore,

it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Parkkila with when signal intensity was approximately constant before the search and wherein when signal intensity is not approximately constant before search, scanning all of said frequencies in order for the mobile station to quickly select a carrier based upon its signal strength after a loss of service, which saves time scanning for a channel and saves the battery life of the mobile station, as taught by Shi.

Regarding claim 4, Parkkila discloses storing the last frequencies (i.e. cell data containing a list of channels received from a cell of select networks before loss of service) available before disconnection (loss of service) from the network (claim 8 lines 28-44 and claim 10 lines 65-67) so that the first scanning sequence scans (reselection measurements on a received signal that has risen above a threshold level) said last available frequencies (i.e. reselection measurements on last BCCH carriers before lost of service, service may be re-established with said network)(col. 7 line 49 through col. 8 line 8 and claim 8 lines 46-56).

Regarding claim 5, Parkkila discloses measuring the intensity (BCCH carrier strength) of the last available frequencies (BCCH carriers before loss of service) of the signal before disconnection (loss of service) from the network (col. 7 lines 25-35).

Regarding claim 6, Parkkila discloses frequency scanning (reselection measurements performed in step 304) is partial (only if channel is found in last BCCH has risen above a predetermined threshold) (col. 10 lines 28-56) only if the intensity (carrier strength) of the last frequencies (last BCCH) available exceeds a predetermined threshold value (within a path loss threshold value C1 or above a predetermined threshold)(col. 7 lines 30-67 and col. 10 lines 28-56).

4. Claims 9-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Klas et al. in view of Yamada et al..

Regarding claim 9, Klas et al. discloses a terminal (user terminal) adapted to be connected to one or more radiocommunication networks (CDMA network or AMPs network) (fig. 6 and col. 9 line 39 through col. 10 line 61) operating on different frequencies (different channels)(col. 9 lines 47-55), said terminal (user terminal) comprising: a processor (means) for partially scanning the frequencies (CDMA channels) of the network using one or more sequences (i.e. partial search of previous acquired CDMA channels or partial search of specified CDMA channels) (col. 10 lines 30-61) each of which is associated with a predetermined list (specified list) of frequencies selected

from all said frequencies (col. 10 lines 30-61). Klas et al. differs from claim 9 of the present invention in that it does not explicit disclose means for determining what type of scanning to perform base on signal intensity. Yamada et al. teaches a PCS handset which goes into an automatic mode selection (means) which consist of a Initial Cache Scan or Full scan based on the type of wireless system and the received RSSI (intensity) from the wireless system (col. 12 line 35 through col. 14 line 42). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Klas et al. with means for determining what type of scanning to perform base on signal intensity in order for the mobile terminal to determine if its in the CDMA network or Amps network based upon the type of scanning needed for rapid communication with the network, as taught by Yamada et al.

Regarding claim 10, Klas et al. means (processor) for selecting (i.e. decides to perform) partial scanning of the various frequencies (CDMA channels)(col. 10 lines 30-40).

Regarding claims 11-14, Klas et al. discloses a terminal (user terminal) adapted to be connected to one or more radiocommunication networks as discussed supra in claim 9 above. Klas et al. differs from claims 11-14 in that it does not explicit disclose whether the intensity of the signal before standby was constant; partial scanning means perform scanning using sequences with a predetermined list of frequencies, means for scanning all said frequencies when the intensity of the signal before the standby was varying; wherein when the signal intensity was varying before standby, scanning all the frequencies of the radiocommunication network. Yamada et al. teaches the intensity (rssi) of the signal before standby (not registered) was constant (col. 13 lines 35-52); partial scanning (Initial Cache scan) means perform scanning using sequences with a predetermined list of frequencies (col. 13 lines 35-67), means for scanning all said frequencies when the intensity of the signal before the standby was varying (col. 13 line 67 through col. 14 line 6); wherein when the signal intensity was varying before standby (col. 14 lines 6-42), scanning all the frequencies of the radiocommunication network (col. 13 line 67 through col. 14 line 42). Therefore, it would have been obvious

to one of ordinary skill in the art at the time the invention was made to modify Klas et al. with whether the intensity of the signal before standby was constant; partial scanning means perform scanning using sequences with a predetermined list of frequencies, means for scanning all said frequencies when the intensity of the signal before the standby was varying; wherein when the signal intensity was varying before standby, scanning all the frequencies of the radiocommunication network in order for the mobile terminal to know what system it is in before it loses connection with the network by performing a particular scanning technique, as taught by Yamada et al..

5. Claims 2 and 3 are rejected under 35 U.S.C. 103(a) as being unpatentable over Parkkila in view of Shi as applied to claim 1 above and in further view of Kallin et al..

Regarding claims 2 and 3, the combination of Parkkila and Shi differs from claims 2 and 3 of the present invention in that they do not explicit disclose said list of frequencies associated with each sequence does not vary and said list of frequencies associated with each sequence varies. Kallin et al. teaches said list of frequencies associated with each sequence does not vary (fixed) (col. 4 lines 35-38) and said list of frequencies associated with each sequence varies (i.e. frequencies learned based upon current environment)(col. 4 lines 35-38). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the combination of Parkkila and Shi with said list of frequencies associated with each sequence does not vary and said

list of frequencies associated with each sequence varies in order for the mobile station to rapidly select the best received signal after a loss of service by using the frequencies within the neighboring list which are fixed presented by the cell the mobile station is camped on or learned by the mobile station which replaces the frequencies within the neighboring list with frequencies that are stronger carriers for service which saves the mobile station time and energy when scanning for a better cell for service, as taught by Kallin et al..

6. Claims 7 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Parkkila in view of Shi as applied to claims 1,4 and 5 above and in further view of Bamburak et al..

Regarding claim 7,, the combination of Parkkila and Shi differs from claim 7 of the present invention in that they do not explicit disclose determining the number of last frequencies available before disconnection from the network carrying a signal of intensity greater than a predetermined threshold value. Bamburak et al. teaches determining the number of last frequencies available (i.e. a last frequency band of a last service provider) (col. 5 lines 7-9 and claim 1 lines 15-17) before disconnection (powering down) from the network (col. 7 lines 7-9), the service providers provides frequency bands across

a spectrum which carry their service operator code (SOC) or system identification code (SID) which the communication device locks onto of the last service provider SOC or SID which is stored within the communication device memory (col. 4 line 63 through col. 5 line 19) that carries a signal of intensity greater than a predetermined threshold value (inherent, as the frequency band of the last service provider that is the signal received and examined to be within or above a threshold which the communication device lock onto is the optimal service provider for connection, as taught in col. 4 lines 6-9, col. 5 lines 9-19). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the combination of Parkkila and Shi with determining the number of last frequencies available before disconnection from the network carrying a signal of intensity greater than a predetermined threshold value in order for the mobile station not to do a full search of frequencies after a loss of service which saves time when locating a signal for connection and saves battery energy within the mobile station, as taught by Bamburak et al..

Regarding claim 8, the combination of Parkkila and Shi Parkkila differs from claim 8 of the present invention in that

it does not explicit disclose the frequency scanning is partial only if said number of last frequencies available carrying a signal of intensity greater than a predetermined threshold intensity is itself greater than a given number. Bamburak et al. teaches the frequency scanning is partial (inherent, when the communication device power up and detects if the last frequency band used has a more preferred service provider or is the optimal service provider and selects the last service provider, thereby not completing a full scan, as taught in claim 1 lines 15-17 and col.5 lines 7-19) only if said number of last frequencies (last frequency band of the last service provider) (claim 1 lines 15-17) available carrying a signal of intensity greater than a predetermined threshold intensity is itself greater than a given number (inherent, as the frequency band of the last service provider that is the signal received and examined to be within or above a threshold which the communication device lock onto is the optimal service provider is itself for connection, as taught in col. 4 lines 6-9, col. 5 lines 9-19). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the combination of Parkkila and Shi with the frequency scanning is partial only if said number of last frequencies available carrying a signal of intensity greater than a

predetermined threshold intensity is itself greater than a given number in order for the mobile station to shorten its frequency scanning time by not completing a frequency scan of neighboring cells within a list of neighboring frequencies which saves the time locating a channel and saves the battery of the mobile station, as taught by Bamburak et al..

7. Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over Parkkila in view of Shi as applied to claim 1 above and in further view of Findikli.

Regarding claim 15, the combination of Parkkila and Shi differs from claim 15 of the present invention in that they do not explicit disclose wherein only when the siral intensity is approximately constant before the periodic network search, executing a partial scan by scanning only some of all of said frequencies. Findikli teaches a method (fig. 3a) wherein the frequency band (i.e. band intensity) of service provider of the terminal is approximately constant before the periodic network search (col. 6 lines 21-37 and col. 7 lines 5-29), executing a partial frequency scanning (col. 7 lines 5-29), and when the frequency band of the terminal is not approximately constant before the periodic network search (col. 7 lines 31-44), performing a scanning of all the frequencies (col. 7 lines 31-

44). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the combination of Parkkila and Shi with when the signal intensity of the terminal is approximately constant before the periodic network search, executing a partial frequency scanning, and when the signal intensity of the terminal is not approximately constant before the periodic network search, performing a scanning of all the frequencies in order for the mobile station to quickly select a carrier based upon its signal strength after a loss of service, as taught by Findikli.

8. Claims 16 is rejected under 35 U.S.C. 103(a) as being unpatentable over Yamada et al. in view of Findikli.

Regarding claim 16, Yamada et al. discloses a method (fig. 6) of connecting a terminal to a radio communication network (fig. 6), said method comprising: determining a signal intensity of the terminal before the terminal performs a periodical network search (col. 12 lines 58-67); and performing the periodical network search by periodically scanning sequencies of the radio communication network (col. 13 lines 1-9). Yamada et al. differs from claim 16 of the present invention in that it does not explicit disclose when the signal intensity of the terminal is approximately constant before the periodic network search, executing a partial frequency scanning, and when the signal intensity of the terminal is not approximately constant before the periodic network search, performing a scanning of all the frequencies. Findikli teaches a method (fig. 3a) wherein the frequency band (i.e. band intensity) of service provider of the terminal is approximately constant before the periodic network search (col. 6 lines 21-37 and col. 7 lines 5-29), executing a partial frequency scanning (col. 7 lines 5-29), and when the frequency band of the terminal is not approximately

constant before the periodic network search (col. 7 lines 31-44), performing a scanning of all the frequencies (col. 7 lines 31-44). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide Yamada et al. with when the signal intensity of the terminal is approximately constant before the periodic network search, executing a partial frequency scanning, and when the signal intensity of the terminal is not approximately constant before the periodic network search, performing a scanning of all the frequencies in order for the PCS handset to select a CMTS system or WTS system quickly by not continuing scanning when a call connect failure, as taught by Findikli.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Keith T. Ferguson whose telephone number is (703) 305-4888. The examiner can normally be reached on 6:30am-5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William Trost can be reached on (703) 308-5318. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Keith Ferguson
Art Unit 2683
February 1, 2005